

## **Abstract v anglickém jazyce**

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Title of rigorous thesis: The effect of quercetin and its selected metabolites on isolated aortal rings of rat

Quercetin and its metabolites are classified into the group of flavonoids. Flavonoid compounds are substances widely extended in nature. They belong to the secondary metabolites of plants and have positive effect on live organism.

Individual effects of flavonoids on the organism were described in this thesis, especially the effects on cardiovascular system. Flavonoids can have vasodilatory activity, antioxidant or anti-inflammatory effect.

The experimental parts of the thesis dealing with the effect of quercetin and its metabolites tamarixetin and isorhamnetin on isolated aortal rings of rat in vitro. Significant vasodilatory activity of these flavonoids was observed.

The mechanism of the vasodilatory effect of quercetin was verified. Our experiments confirm the theory that the effect is independent on the function of endothel.